

REMARKS

By the foregoing, Claims 2 and 3 have been canceled and new Claims 18-20 have been submitted. Claims 1 and 4-20 are pending in the application. Claims 4, 6, 8-9, 13, and 16-17 have been withdrawn from consideration. In view of the foregoing amendments and the following remarks, reconsideration, reexamination, and allowance of the application are respectfully requested.

Initially, the Examiner is thanked for returning an initialed copy of the Information Disclosure Statement submitted on March 20, 2003. The Examiner is also thanked for acknowledging receipt of all of the certified copies of the priority documents from the International Bureau.

Rejections under 35 U.S.C. §112, second paragraph

Page 2 of the Office Action sets forth a rejection of Claims 1-3, 5, 7, 10-12, and 14-15 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Claims 1, 4, and 5 have been amended to address the concerns set forth in the Office Action. In addition, the dependencies of Claims 4-6 have been updated, and Claims 8, 10, and 11 have been amended to place them in better form. The claims are believed to fully comply with 35 U.S.C. §112, second paragraph, and withdrawal of this rejection is respectfully requested.

Prior Art Rejections

Page 3 of the Office Action sets forth a rejection of claims 1-3, 7, 14 and 15, under 35 U.S.C. §102(e) based on the disclosure of U.S. Patent No. 6,148,731 to *Winter* ("*Winter '731*"). In particular, the Office Action points to Figure 9 of *Winter '731* as having all of the features of claim 1. Claim 1 has been amended to include the features of Claims 2 and 3, and to recite that the internal core has at least one rib on an outer surface. Accordingly, Claim 1 is directed to ammunition for small-, medium- and large-caliber weapons, comprising a bullet with the same caliber as the weapon or which is subcaliber. The bullet includes a profiled front part, a central part, and a rear part. The bullet also contains an internal core which extends along an axis of the bullet and which is housed in an axial hole in a body of the bullet. The axial hole is open at the front of the bullet. The internal core has rigidity greater than that of the body of the bullet, and the internal core extends over the front part and the central part of the bullet. The internal core has at least one rib on an outer surface.

Winter '731 does not disclose a bullet having an internal core extending along an axis of the bullet, the internal core being arranged within an axial hole in a body of the bullet. In particular, the *Winter '731* sheath 9 is not a core and does not extend along the axis of the *Winter '731* projectile. Instead, the *Winter '731* sheath 9 surrounds the central arbor 503, which is a part of the monoblock body of the projectile body 2. See column 2, lines 34-37 and column 4, lines 40-47. Nor can the *Winter '731* arbor 503 be considered to correspond to the claimed internal core having a rigidity greater than the rigidity of the

body. As discussed above, the arbor 503 is the same material as the remainder of the projectile body 2, with the exception of the sheath 9. Moreover, neither the sheath 9 or arbor 503 of *Winter '731* include at least one rib. Accordingly, *Winter '731* does not disclose a bullet having all of the features set forth in independent Claim 1, and cannot anticipate Claim 1.

Page 3 of the Office Action sets forth a rejection of Claims 1, 7, 10, 11, 14 and 15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,685,397 to *Schirneker*. As discussed above, Claim 1 has been amended to include the features of Claims 2 and 3. Therefore, as neither Claim 2 nor Claim 3 has been rejected based on *Schirneker*, Claim 1 is believed to be allowable over *Schirneker*.

Page 3 of the Office Action sets forth a rejection of Claims 1-3, 7, 14 and 15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,245,557 to *Knappworst et al.* Applicant respectfully submits that *Knappworst et al.* does not disclose ammunition having all of the features of independent Claim 1. *Knappworst et al.* has a projectile core 1 surrounded by a jacket 7, a bullet insert 12, and a lug 13. *Knappworst et al.* does not disclose an axial hole which is open at the front of the bullet. Instead, the bullet insert 12 of *Knappworst et al.* is shaped so that it covers the front opening of the bullet core 1 entirely and completely fills the truncated-cone-shaped indentation. See column 5, lines 44-50. Moreover, *Knappworst et al.* does not disclose any ribs on an outer surface of an interior core. Accordingly, *Knappworst et al.* does not disclose ammunition having all of the features of independent Claim 1, and cannot anticipate Claim 1.

Page 4 of the Office Action sets forth a rejection of Claims 1-3, 7 and 14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,185,495 to *Petrovich et al.*

Petrovich et al. relates to a small arms projectile having a core 16 surrounding a stem 18, the stem being integral with the wall 22 and jacket 28. *Petrovich et al.* does not have an internal core having at least one rib on an outer surface, as set forth in Claim 1. Indeed, *Petrovich et al.* discloses that the stem should have a smooth surface. See column 2, lines 12-15, which states that the "wall 22 and stem 18 have smooth surfaces contacting the core to facilitate sliding motion between them and the core to facilitate sliding motion between them and the core when projectile 10 hits a target". For at least this reason, *Petrovich et al.* can not anticipate Claim 1.

Page 4 of the Office Action sets forth a rejection of Claims 1-3, 7, 14 and 15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,160,805 to *Winter* ("Winter '805"). In particular, the Office Action points to Figure 1 as having all of the features of these claims. The *Winter* '805 projectile 1 has a core 2 and a core jacket 3, with the core 2 being formed of a material which has a higher specific gravity than the material of the jacket 3. The projectile 1 is seated in a conventional cartridge case 12 which has a primer cap 13 and a powder chamber 14. *Winter* '805 does not disclose at least an internal core having at least one rib on an outer surface. For at least these reasons, *Winter* '805 cannot anticipate Claim 1.

The dependent claims are believed to be allowable for at least the same reasons that Claim 1 is allowable. Nonetheless, a few comments regarding several of the dependent claims are set forth below in order to expedite prosecution.

Pages 4 and 5 of the Office Action set forth a rejection of dependent Claim 5 under 35 U.S.C. §103(a) as being obvious based on the disclosure of *Winter* '731 or *Winter* '805 *Winter* '831 or *Winter* '805 in view of U.S. Patent No. 3,881,421 to *Burczynski*. Claim 5 recites that the front face of the internal core is set back from the front face of the bullet. *Burczynski* is directed to a bullet having lead body 13 without an internal core. Therefore, *Burczynski* cannot remedy the deficiencies of *Winter* '731 or *Winter* '805. For at least these reasons, Claim 5 is patentably distinct over the disclosures of *Burczynski* and either *Winter* '731 or *Winter* '805.

Claims 10-12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over either *Winter* '731 or *Knappworst et al* in view of U.S. Patent No. 1,493,614 to *Dickerman*. Claim 10 depends from Claim 1 and recites that the internal core consists of a rod having symmetry of revolution, the rod having ribs over part of its surface.

As discussed above, *Winter* '731 has a sheath 9 which surrounds the arbor 503, and does not disclose an interior core. *Dickerman* is directed to a mushroom or spitzer bullet having a tip 5 which forms a flush joint with the jacket 6. See page 1, lines 49-52. The *Dickerman* anchor 17 has a groove 18 with serrations 22 intended to prevent relative rotation. See page 2, lines 24-35. The *Dickerman* tip 5 has a large surface which is exposed to the air as the bullet after the bullet is fired. In contrast, most of the sheath 9 of

Winter '731 is covered by the collar 504. *Dickerman* does not provide any guidance for modifying a bullet having an interior sheath which is almost completely covered by a collar to instead include a rod having ribs on an outer surface. For at least these reasons, Claims 10-12 are patentably distinct over the combined disclosures of *Winter '731* and *Dickerman*.

As mentioned in an earlier paragraph, *Knappworst et al.* does not disclose a bullet having an axial hole which is open at the front of the bullet. Nor does *Dickerman* remedy this deficiency. The *Dickerman* jacket 7 forward edge is flush with the tip 5, so that no opening is present. For at least these reasons, Claims 10-12 are patentably distinct over the combined disclosures of *Knappworst et al.* and *Dickerman*.

For at least the foregoing reasons, applicant respectfully requests withdrawal of the prior art rejection of Claims 1, 5, 7, 10-12, 14 and 15.

New Claims 18 and 19 are provided to set forth subject matter previously recited in Claim 1. New Claim 20 is presented to set forth additional subject matter to which the Applicant is believed to be entitled. These claims are believed to be allowable for at least the same reasons that Claim 1 is allowable. In addition, the new claims set forth subject matter not found in the prior art of record. Favorable action on Claims 18-20 is therefore requested.

Conclusion

All of the outstanding matters having been addressed, it is respectfully requested that the Examiner provide an early indication of the allowability of the application.

Should the Examiner have any questions regarding this Amendment, or regarding the application in general, he is cordially invited to contact the undersigned at the number listed below.

Respectfully submitted,

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